



**PHILADELPHIA NAVY YARD
FOUNDRY BUILDING**
21,000 sq. ft. Side Wall Construction



PERFECT CIRCLE PISTON RING CO.
HAGERSTOWN, INDIANA
7,500 sq. ft. C. W. G. Sawtooth Construction

ORIGINAL SOLID CORRUGATED WIRE GLASS

SKYLIGHTS, SAWTOOTH AND SIDE WALL CONSTRUCTION



SLUDGE BEDS
BURLINGTON, N. J.
All C. W. G. Buildings



GENERAL STEEL CASTINGS CO.
EDDYSTONE, PA.
323,000 sq. ft. Monitor Roofs

PENNSYLVANIA WIRE GLASS COMPANY
1612 MARKET STREET
PHILADELPHIA, PA.

ORIGINAL SOLID CORRUGATED WIRE GLASS SKYLIGHTS

Corrugated Wire Glass (CWG) is a corrugated sheet of glass with wire netting incorporated in it during the process of manufacture. Owing to the corrugations it has strength many times greater than any flat glass of equal thickness. To meet the demand for a strong, substantial skylight CWG was adopted to this use by the PENNSYLVANIA WIRE GLASS COMPANY which has specialized in this form of construction for many years.

CWG Skylights can be placed on a roof of any material, including corrugated iron and corrugated asbestos. CWG can be used for roofs, sidewalls, marquees, canopies and, in fact, wherever *daylight* is desired.

CWG Skylights offer many points of superiority. Low maintenance costs are an important item. There are no bars to rust or corrode. No supplementary frame is used as they are applied

directly on steel or wood purlins or curbs, and concrete. They have unusual resistance to vibration and temperature changes and are completely weathertight.

Because of the corrugations, rain washes off dirt and dust, making these skylights practically self-cleaning. Being translucent they transmit diffused light with a minimum of shadows.

The Company maintains an engineering service department for consultation regarding skylighting and kindred problems for which there is no charge. Upon receipt of rough sketches or details they will be glad to offer suggestions for CWG Skylights, roofs, etc. Samples of any type of glass manufactured will gladly be mailed on request. For data on Flat Wire Glass and Actinic Glass refer to catalog in the Glass Section of Sweet's File. See File Index.

INDEX TO DETAILS

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- P-100 Isometric Detail of Typical Lap Joint.
- P-101 Gable End Skylights with Steel Framing.
- P-102 Single Pitch Skylights with Steel Framing.
- P-103 Concrete Curb Skylights.
- P-104 Concrete Curb Skylights.
- P-105 Skylights on Wood Sheathed Roof.
- P-106 Wood Curb Skylights.
- P-107 Skylights with Cement-tile Roofing.
- P-108 Skylights with Steel-deck Roofing.
- P-109 Sawtooth Skylights with Steel Framing.
- P-110 Sawtooth Skylights with Steel Framing.
- P-111 Sawtooth Skylights with Wood Framing.
- P-112 Skylights on Back Slopes of Sawtooth Framing.
- P-113 Skylights with Corrugated Sheet Metal Roofing.
- P-114 Steel Framed Marquee.
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- P-116 Methods of Draining Condensation.

Plate No.

- P-117 Steel Framed Canopies.
- P-118 Details of Sawtooth, Top-Hung, Operated Sash and Fixed Glass
- P-119 Details of Windows, Pivoted Sash and Fixed Glass
- *P-120 to P-124 inclusive.
- 2700 Typical CWG Skylights with corrugated asbestos.
- 2700A Details of CWG with 2½ in. and 2¾ in. pitch corrugated asbestos.
- 2700B Details of CWG with 4.2 in. pitch corrugated asbestos.
- 2825A Standard 10 ft. 0 in. wide Curb Skylight—Steel Frame.
- 2825B Standard 20 ft. 0 in. wide Curb Skylight—Steel Frame.
- 2825c Standard 10 ft. 0 in. and 20 ft. 0 in. wide Skylight Gable-end Details.
- 3551 Details of CWG Ventilating Units.
- 3606 Sludge Bed Details.
- 3606A Sludge Bed Details.

*These sheets will be sent out as they are issued.

SPECIFICATIONS FOR THE INSTALLATION OF ORIGINAL SOLID CORRUGATED WIRE GLASS

SCOPE OF WORK

I. Work by Others—

All supporting frames, curbs, purlins, ridge-beams, tie-rods and bracing for proper construction shall be provided under another contract.

All roofing, curb and roof flashings, gutters and counter-flashings shall be provided under another contract.

II. Work Required—

The work to be done under this contract includes the furnishing of all labor, materials, equipment and services necessary for, and reasonably incidental to, the erection of (White or Actinic—specify which) Corrugated Wire Glass ⅝" thick (in Skylights, Sawtooth or Side-Wall Panels), as manufactured by the PENNSYLVANIA WIRE GLASS COMPANY with standard fittings of (specify which) No. 3S¾H Aluminum (.032 in. thick), 18-oz. cold rolled copper, 24-gauge galvanized steel (copper bearing) (painted with aluminum), 13-gauge zinc, 24-gauge "Lead Clad" steel, 6-lb. hard lead, as shown on the drawings and herein specified.

SHOP DRAWINGS

This Contractor shall furnish the (Architects, Engineers, Purchasers), for their approval before any of the work is executed, complete shop drawings conforming to the recommendations of the manufacturer.

CONSTRUCTION AND ERECTION

This Contractor shall erect the Corrugated Wire Glass exactly as prescribed in the approved drawings and recommendations of the PENNSYLVANIA WIRE GLASS COMPANY.

(While the specification clause above will cover the erection of Corrugated Wire Glass, under the heading of "Notes" below, there are several clauses which may be included where deemed necessary.)

NOTES

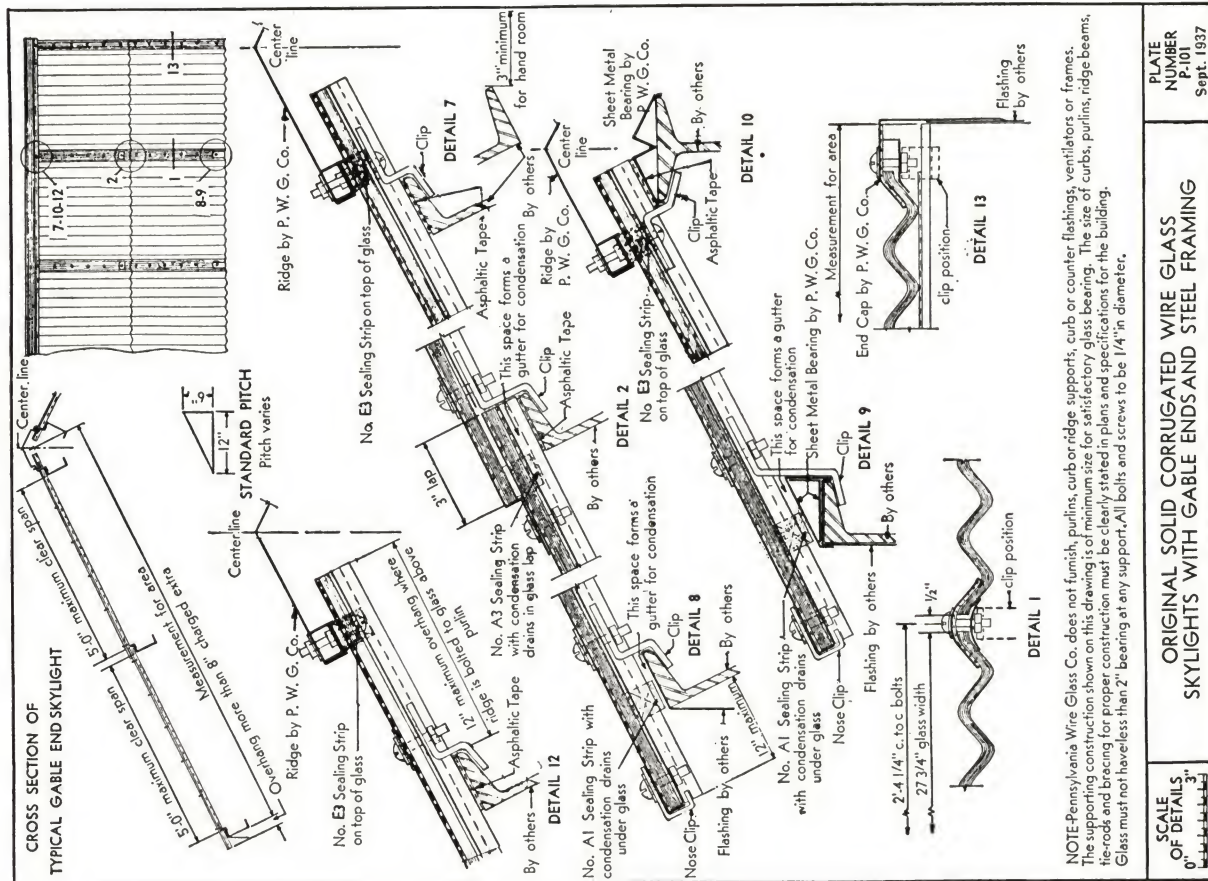
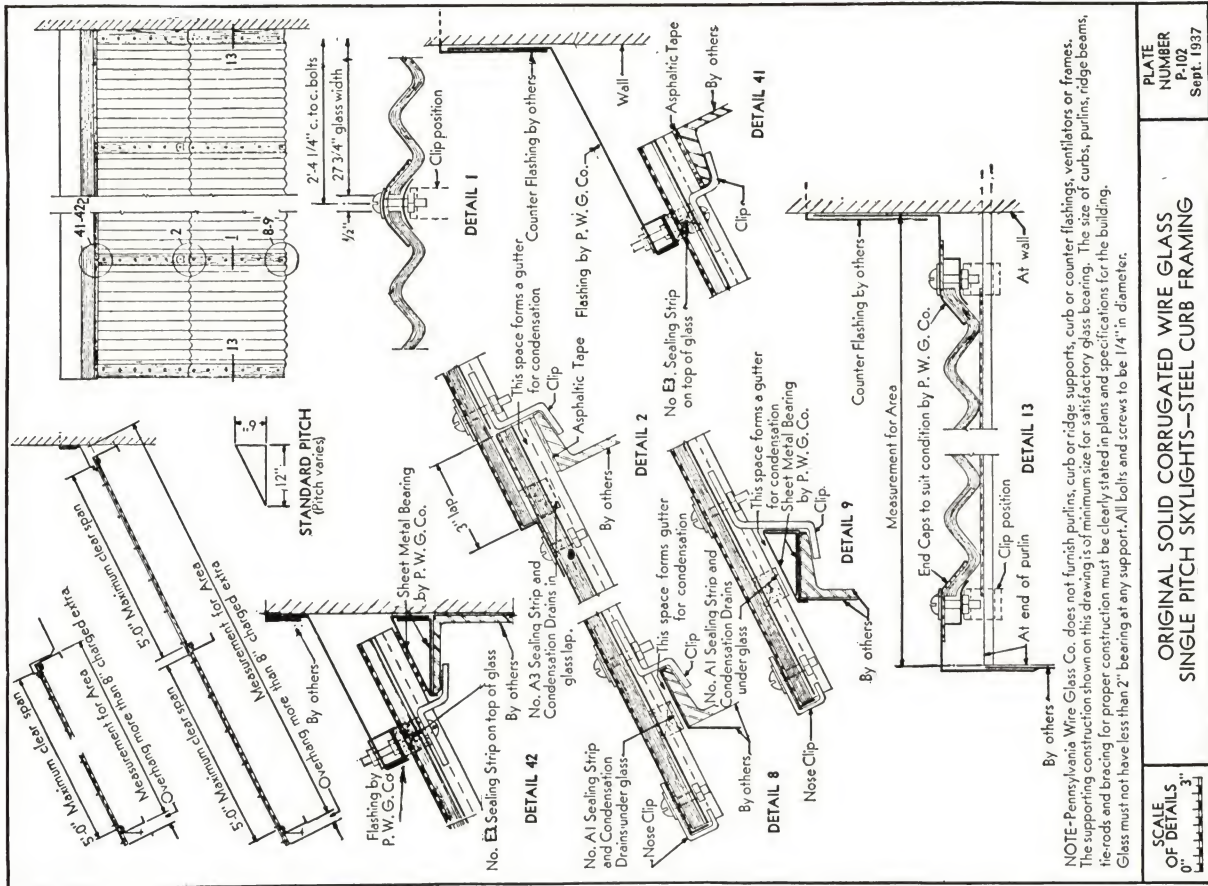
(a) No sheet of Corrugated Wire Glass shall exceed 27¼ in. in width, and, no single sheet shall span more than 60 in. clear opening (up the slope) without an intermediate support. Where glass is set at an angle of 60 degrees, or more, from the horizontal, the maximum clear span may extend to 96 in. (up the slope). Corrugated Wire Glass covering openings greater than those mentioned must have an intermediate support or arrangements must be made to use two or more lights of glass.

(b) The sheets of glass shall be laid edge to edge (not lapping) with ½-in. spaces between the sheets and the open joints so formed shall be covered with exterior metal cover caps and metal inner strips which conform to the corrugations of the glass. The exterior cover caps shall have an asphaltic lining. The caps and inner strips, to complete the joint, shall be bolted together by bolts passing through the caps and inner strips and between the sheets of glass approximately 9 in. center to center.

(c) Where structural supports occur, clips, engaged by bolts passing through the cover caps, shall be used to hold the glass securely in place.

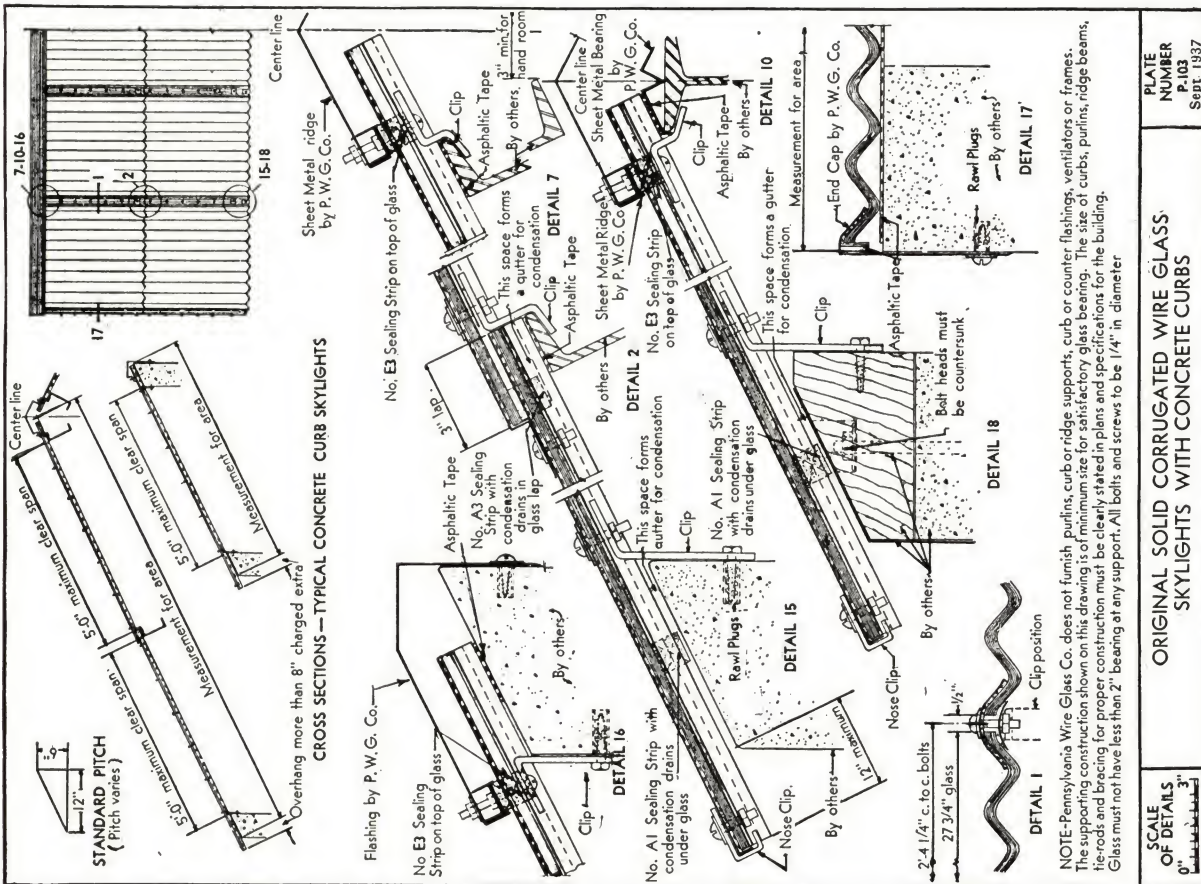
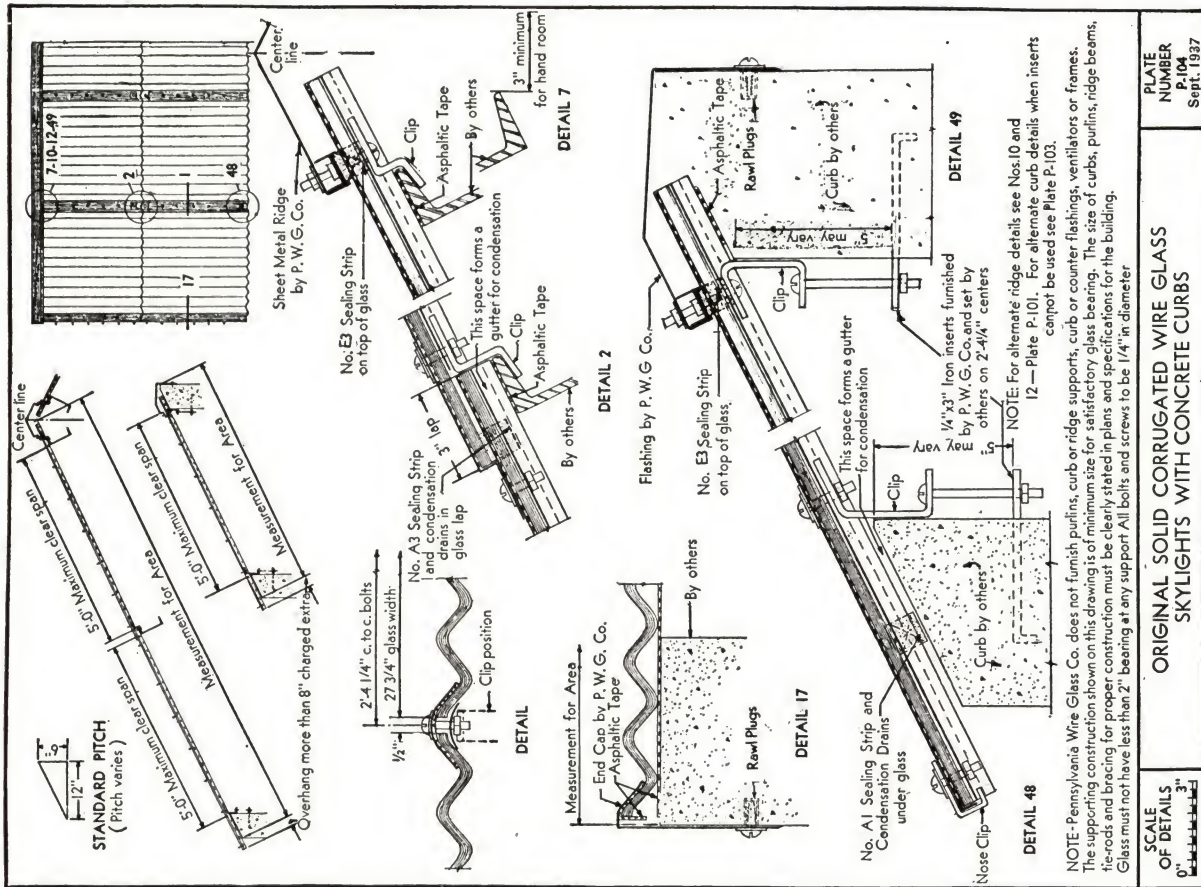
(d) Each light of glass shall have a firm, even bearing and wherever any sheet of glass is applied to structural work (such as curbs, purlins, etc.), it shall be cushioned with an asphalt strip. Where it laps over other glass, it shall be cushioned with a sealing strip.

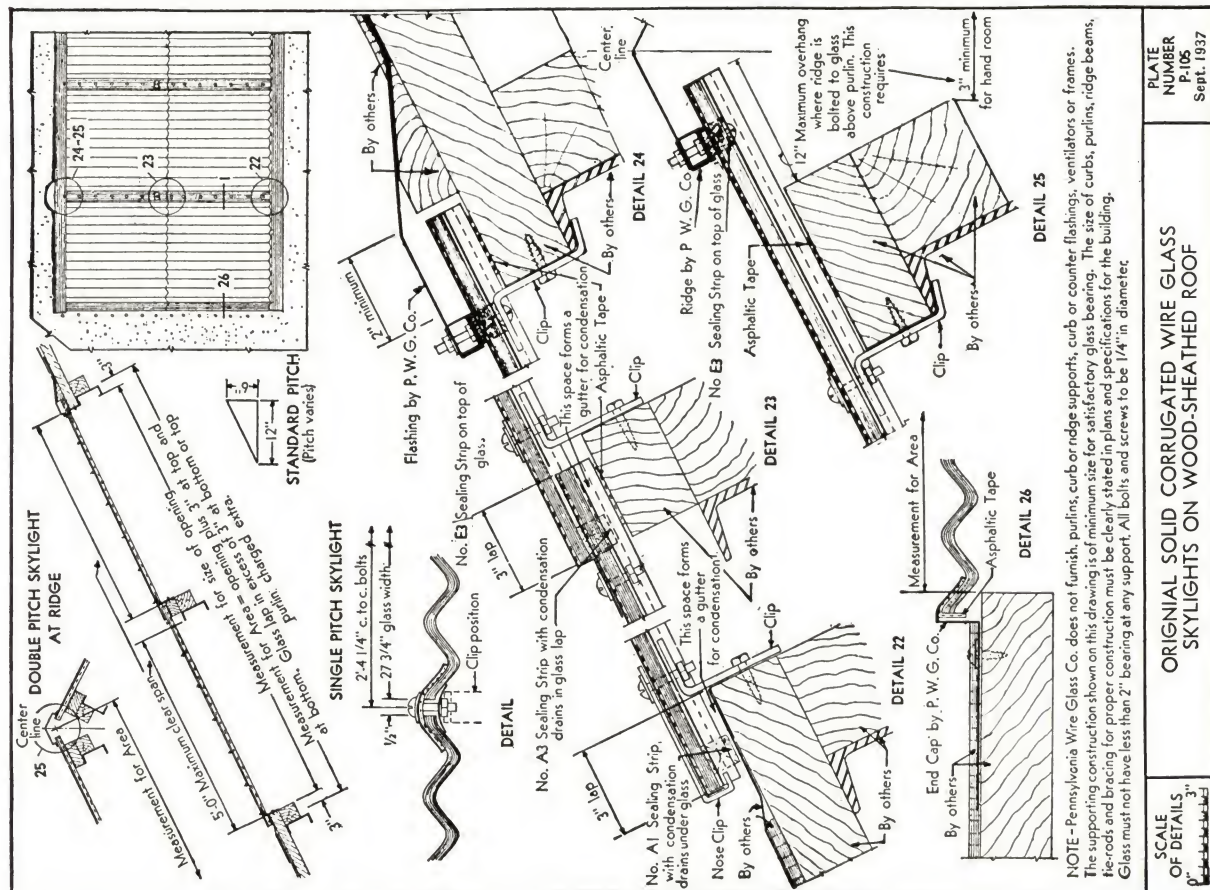
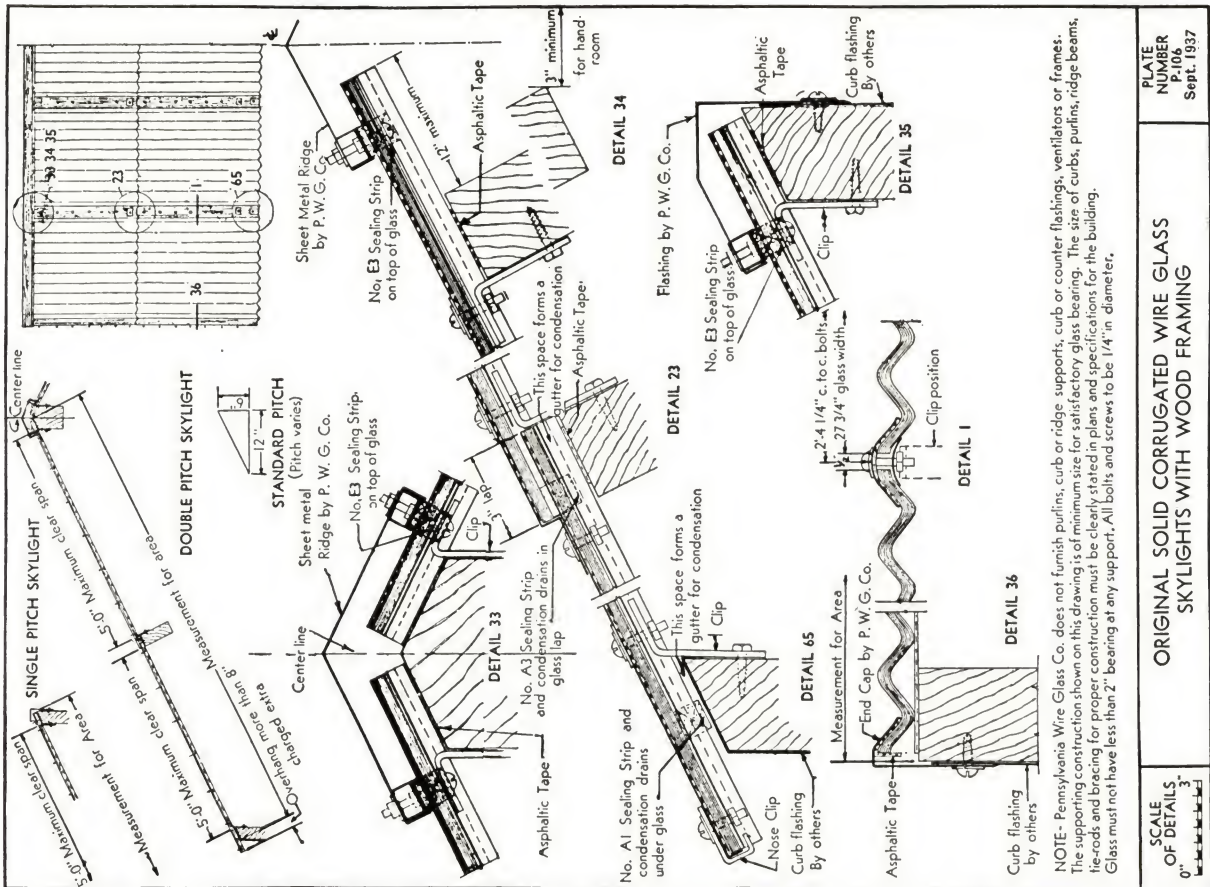
At the bottom (or eaves) of Corrugated Wire Glass construction and at the top (in conjunction with the ridge or flashings), the openings caused by the corrugations of the glass shall be filled with a sealing strip especially designed and supplied for this purpose.

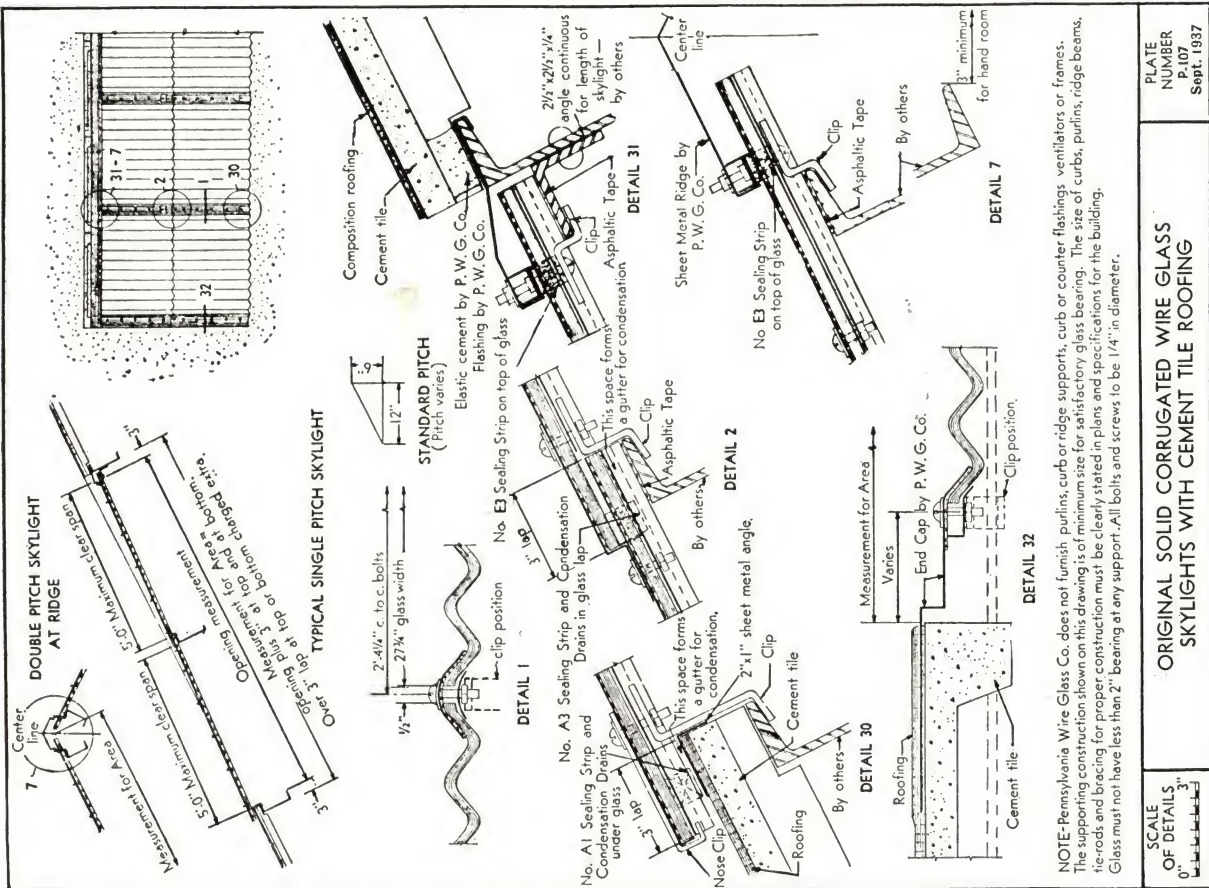
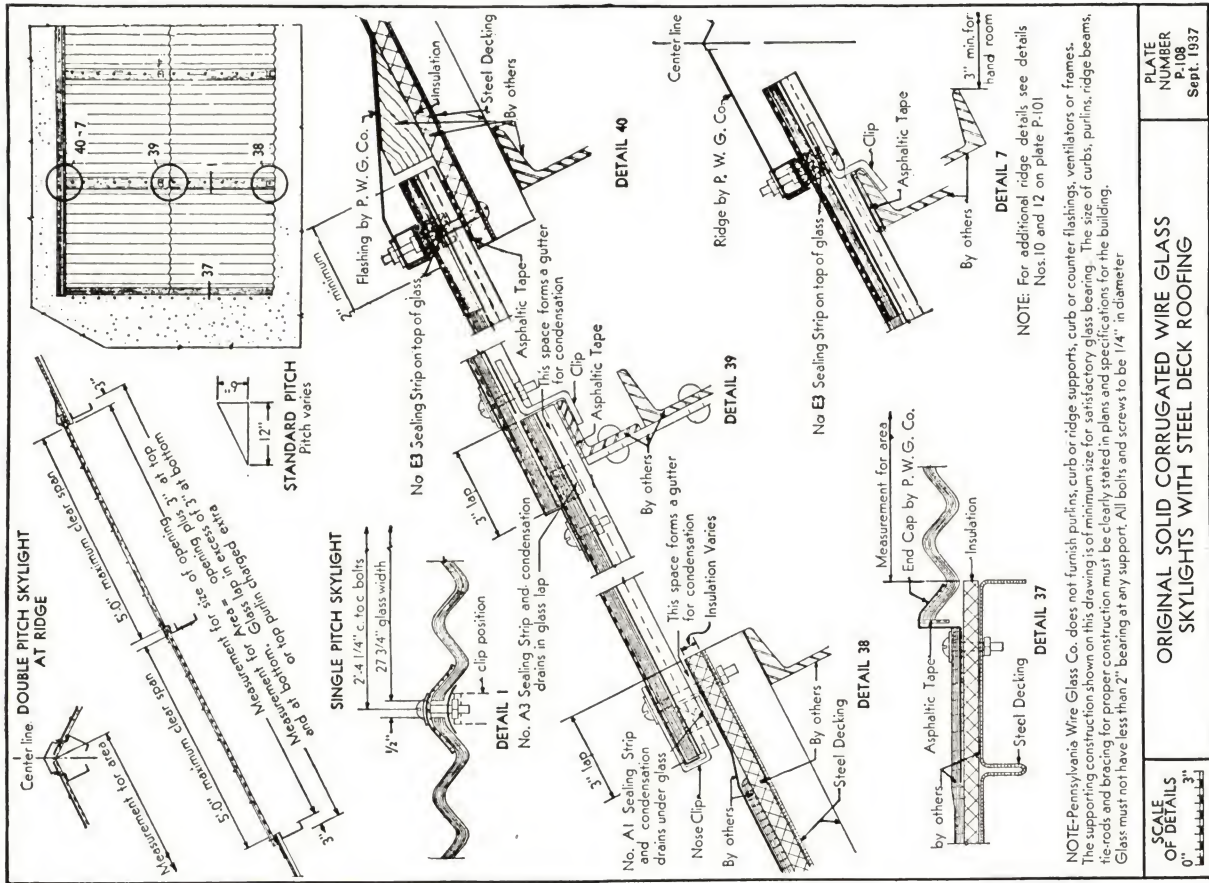


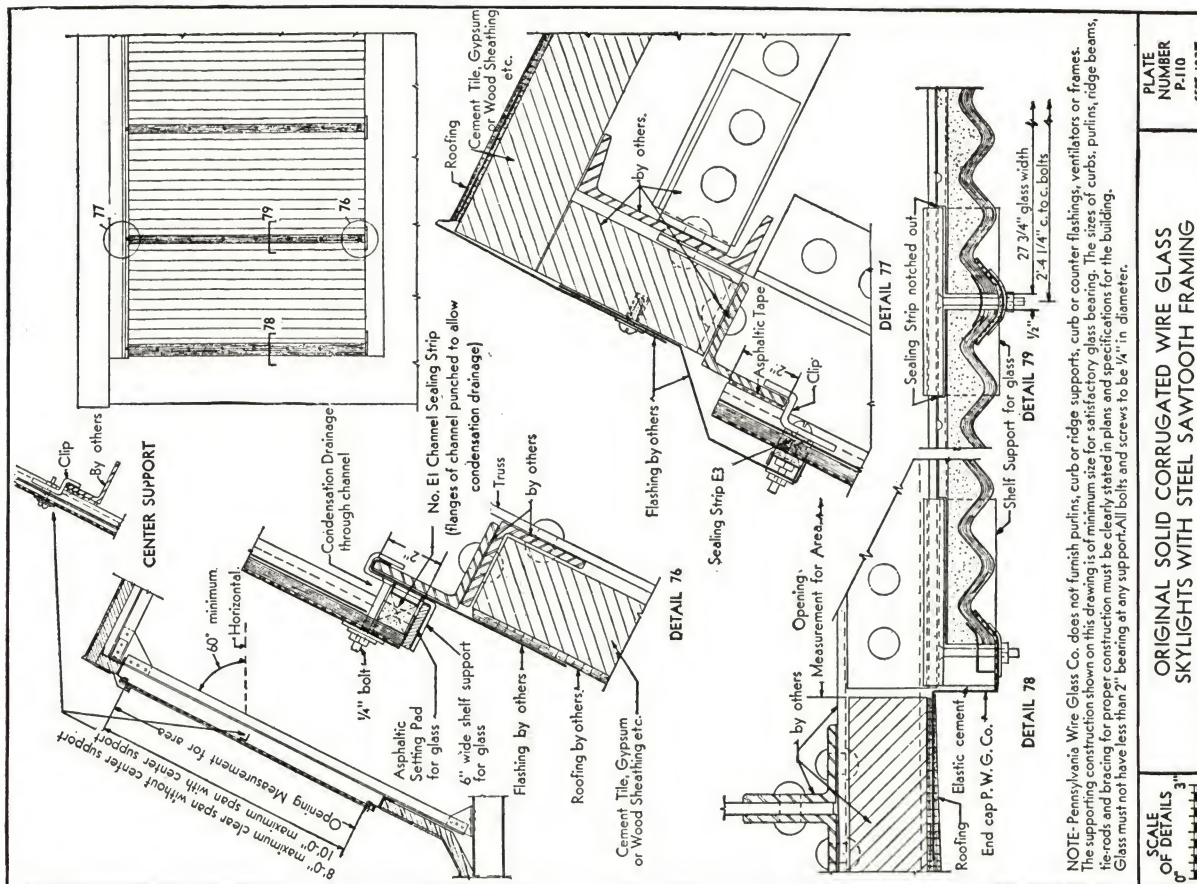
SCALE OF DETAILS	ORIGINAL SOLID CORRUGATED WIRE GLASS SINGLE PITCH SKYLIGHTS—STEEL CURB FRAMING	PLATE NUMBER
0" 3"		P.102
		Sept. 1937

SCALE OF DETAILS	ORIGINAL SOLID CORRUGATED WIRE GLASS SKYLIGHTS WITH GABLE ENDS AND STEEL FRAMING	PLATE NUMBER
0" 3"		P.101
		Sept. 1937

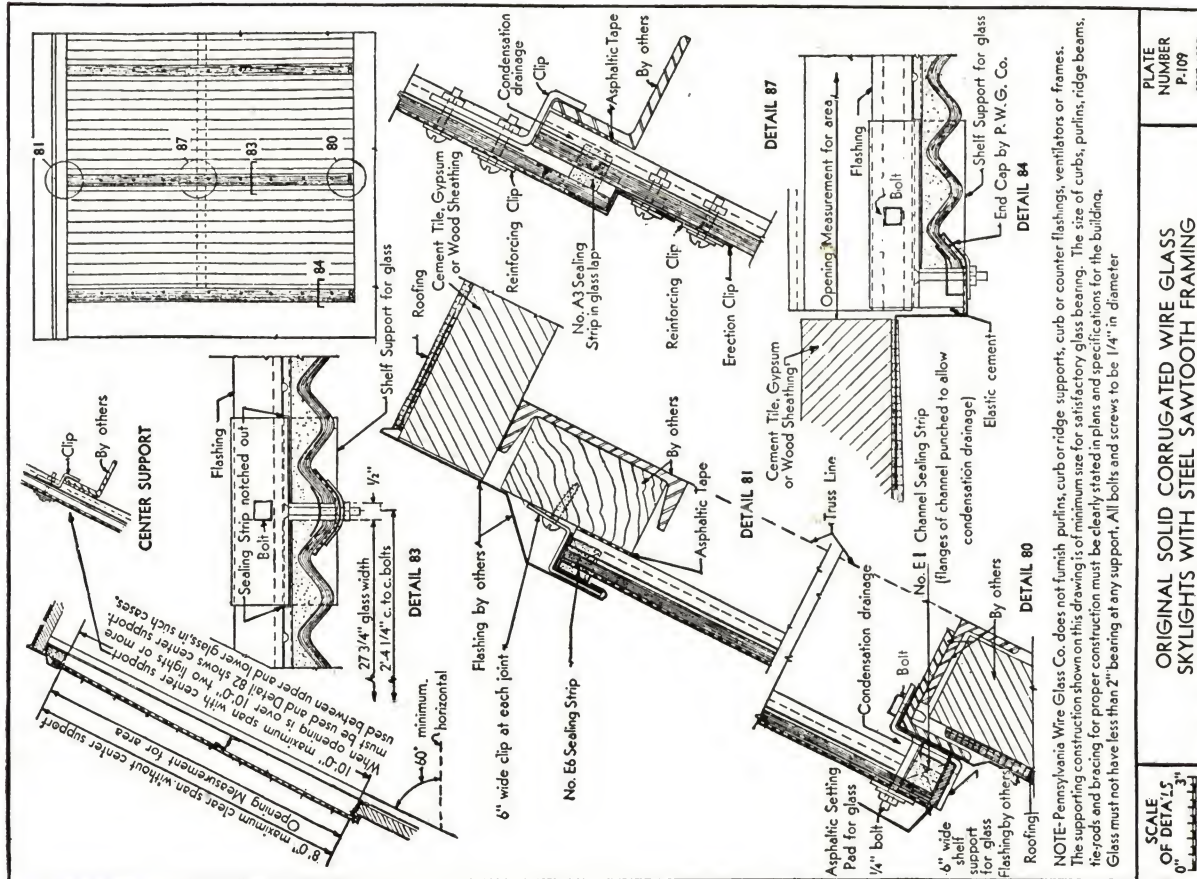




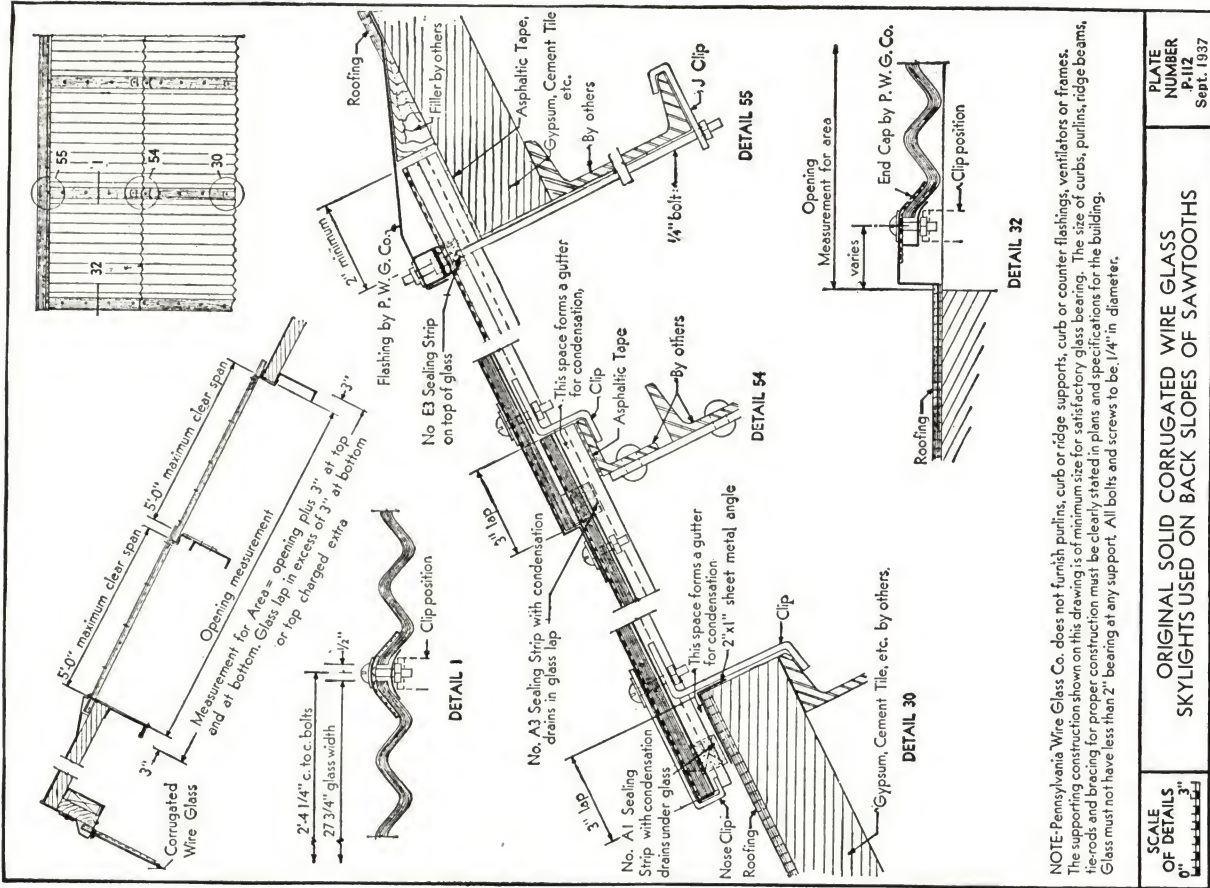




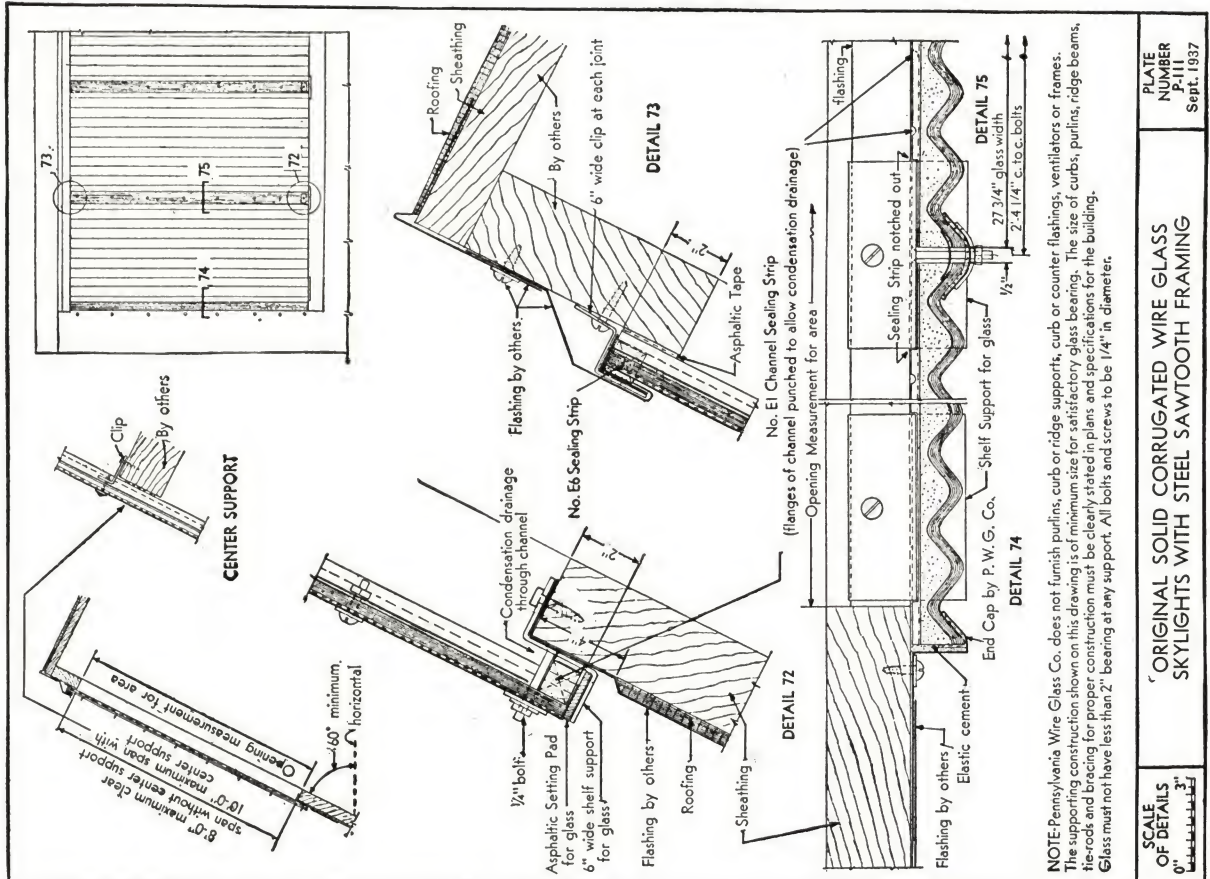
SCALE OF DETAILS 0" = 1'-0"	ORIGINAL SOLID CORRUGATED WIRE GLASS SKYLIGHTS WITH STEEL SAWTOOTH FRAMING	PLATE NUMBER P-110 SEPT. 1938
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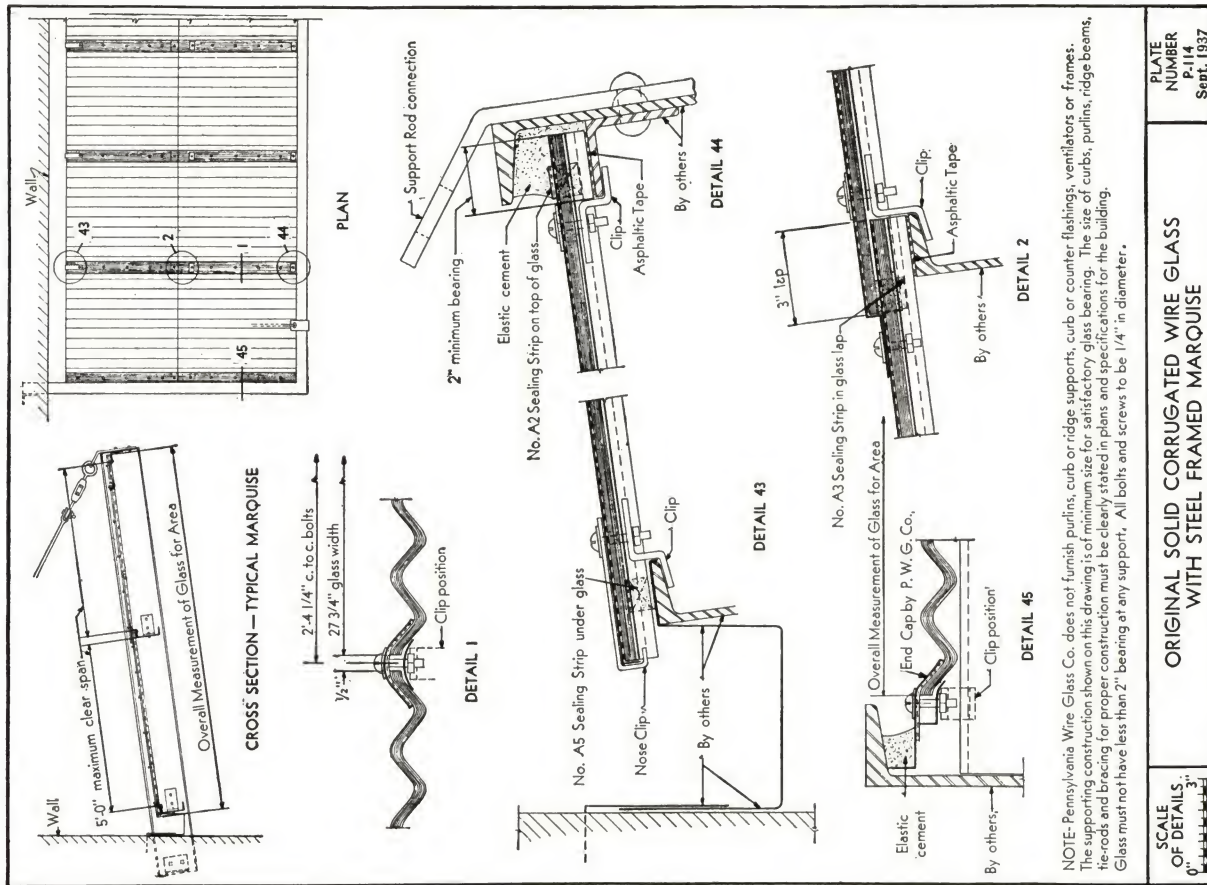
SCALE OF DETAILS 0" = 1'-0"	ORIGINAL SOLID CORRUGATED WIRE GLASS SKYLIGHTS WITH STEEL SAWTOOTH FRAMING	PLATE NUMBER P-109 SEPT. 1937
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NOTE: Pennsylvania Wire Glass Co. does not furnish purlins, curb or ridge supports, curb or counter flashings, ventilators or frames. The supporting construction shown on this drawing is of minimum size for satisfactory glass bearing. The size of curbs, purlins, ridge beams, tie-rods and bracing for proper construction must be clearly stated in plans and specifications for the building. Glass must not have less than 2" bearing at any support. All bolts and screws to be 1/4" in diameter.

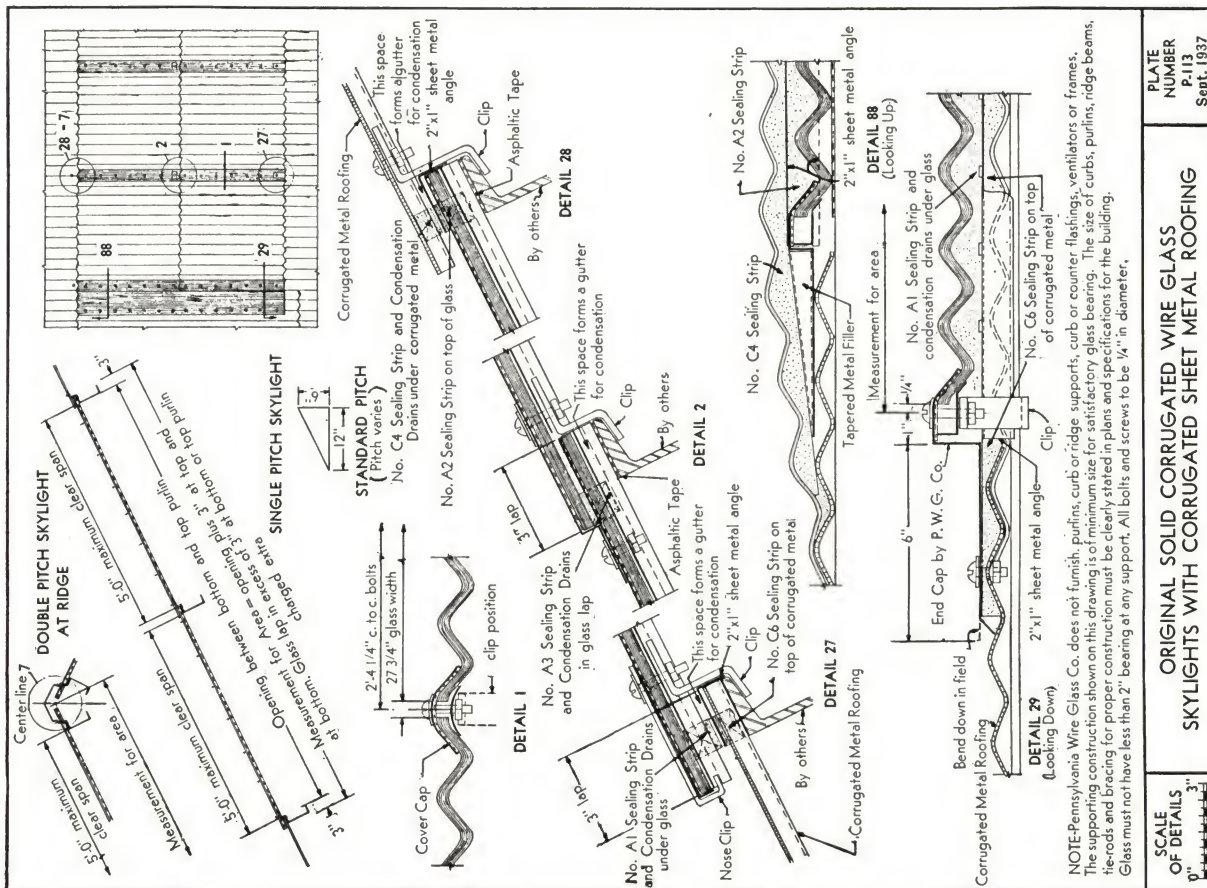


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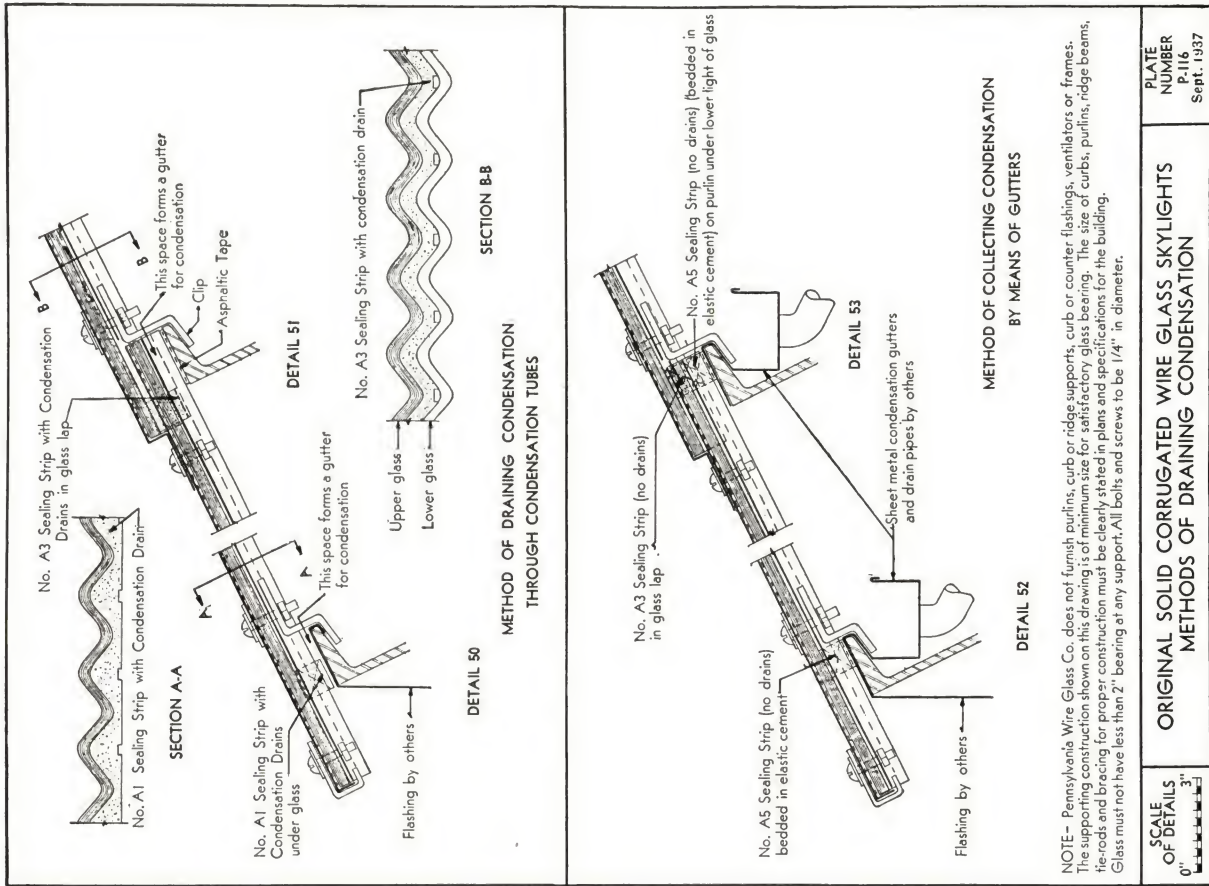
NOTE: Pennsylvania Wire Glass Co. does not furnish purlins, curb or ridge supports, curb or counter flashings, ventilators or frames. The supporting construction shown on this drawing is of minimum size for satisfactory glass bearing. The size of curbs, purlins, ridge beams, tie-rods and bracing for proper construction must be clearly stated in plans and specifications for the building. Glass must not have less than 2" bearing at any support. All bolts and screws to be 1/4" in diameter.

SCALE OF DETAILS	ORIGINAL SOLID CORRUGATED WIRE GLASS WITH STEEL FRAMED MARQUEE	PLATE NUMBER
0" = 1'-0"		P-114
		Sept. 1937

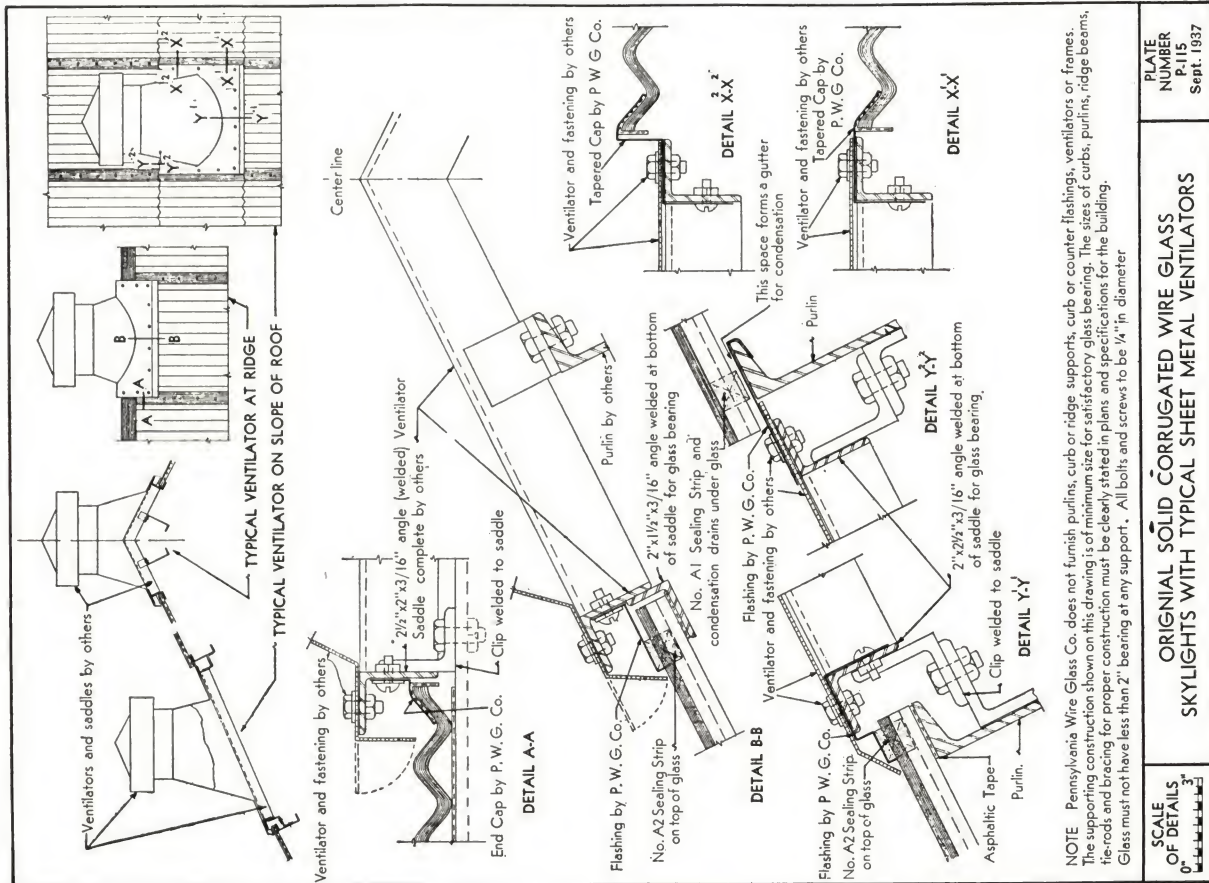


NOTE: Pennsylvania Wire Glass Co. does not furnish purlins, curb or ridge supports, curb or counter flashings, ventilators or frames. The supporting construction shown on this drawing is of minimum size for satisfactory glass bearing. The size of curbs, purlins, ridge beams, tie-rods and bracing for proper construction must be clearly stated in plans and specifications for the building. Glass must not have less than 2" bearing at any support. All bolts and screws to be 1/4" in diameter.

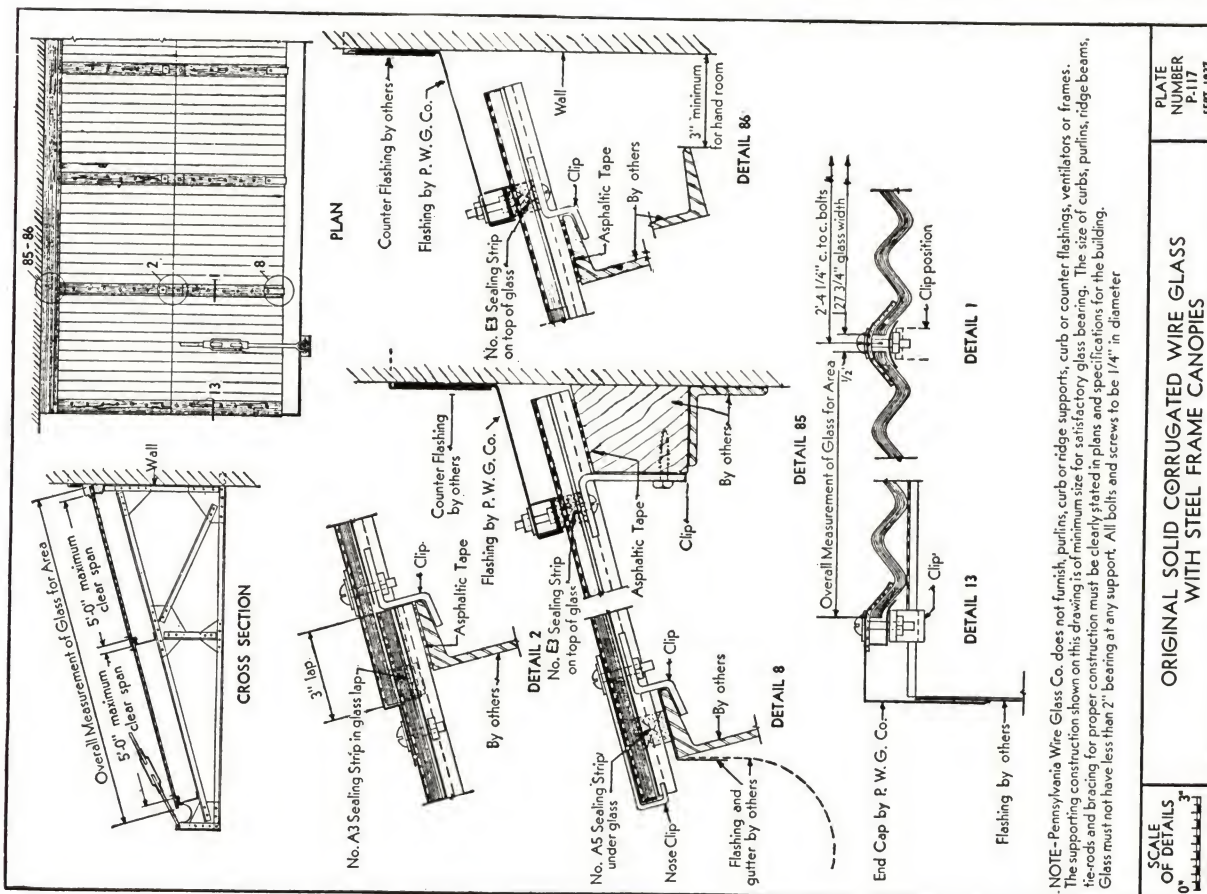
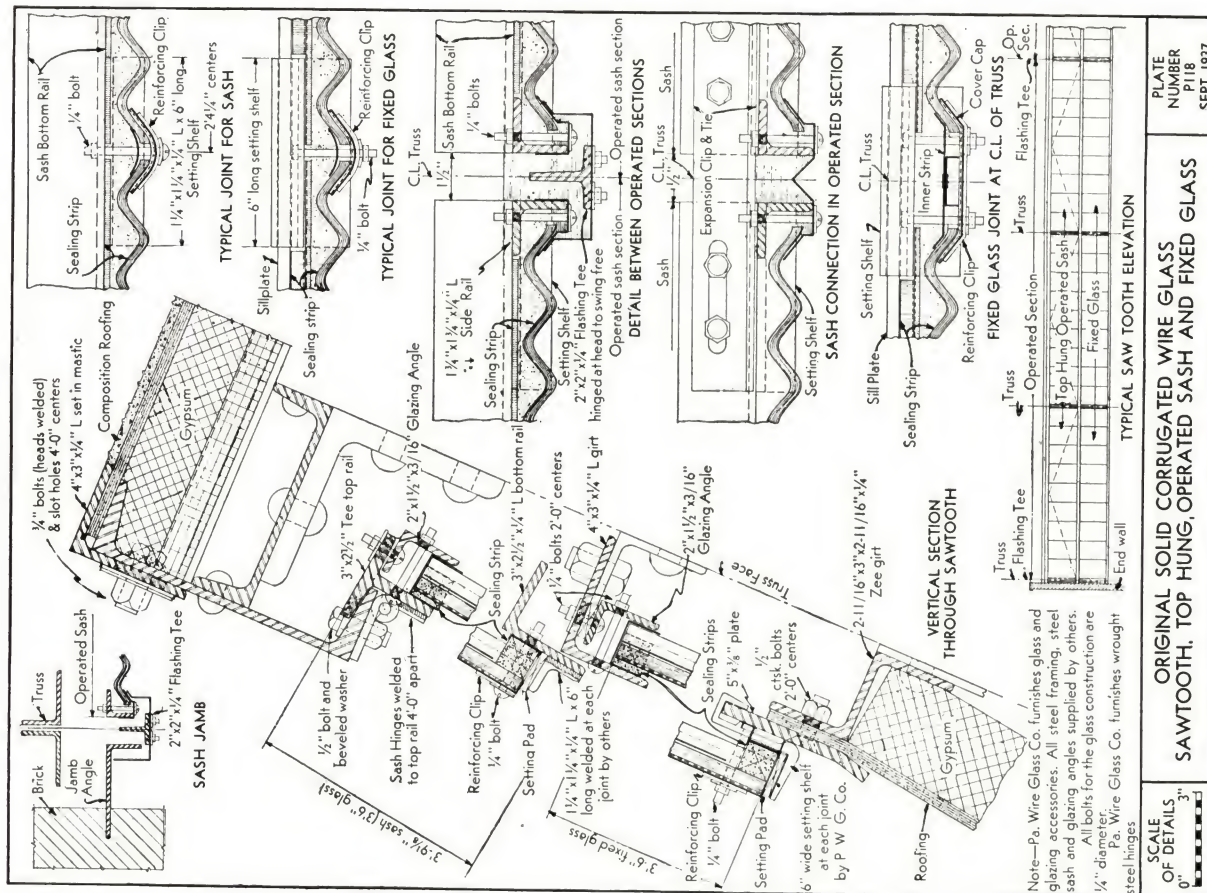
SCALE OF DETAILS	ORIGINAL SOLID CORRUGATED WIRE GLASS SKYLIGHTS WITH CORRUGATED SHEET METAL ROOFING	PLATE NUMBER
0" = 1'-0"		P-113
		Sept. 1937



NOTE— Pennsylvania Wire Glass Co. does not furnish purlins, curb or ridge supports, curb or counter flashings, ventilators or frames. The supporting construction shown on this drawing is of minimum size for satisfactory glass bearing. The size of curbs, purlins, ridge beams, tie-rods and bracing for proper construction must be clearly stated in plans and specifications for the building. Glass must not have less than 2" bearing at any support. All bolts and screws to be 1/4" in diameter.

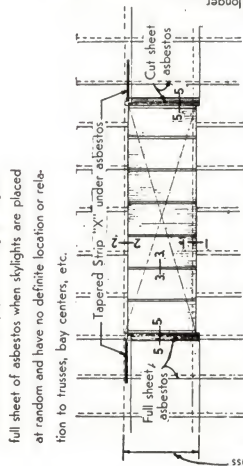


NOTE— Pennsylvania Wire Glass Co. does not furnish purlins, curb or ridge supports, curb or counter flashings, ventilators or frames. The supporting construction shown on this drawing is of minimum size for satisfactory glass bearing. The size of curbs, purlins, ridge beams, tie-rods and bracing for proper construction must be clearly stated in plans and specifications for the building. Glass must not have less than 2" bearing at any support. All bolts and screws to be 1/4" in diameter.

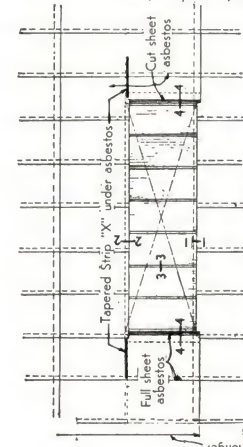




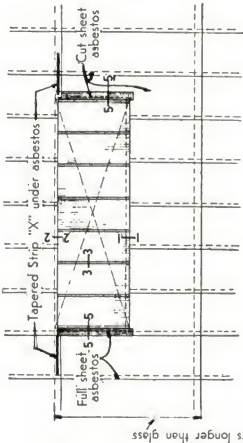
TOP ROW—Shows skylights starting at edge of full sheet of asbestos when skylights are placed at random and have no definite location or relation to trusses, bay centers, etc.



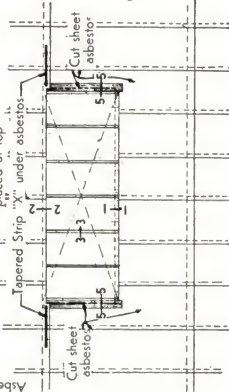
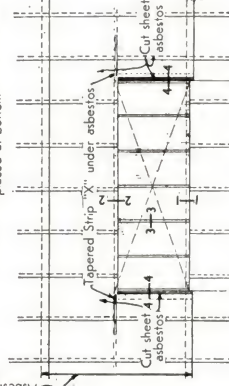
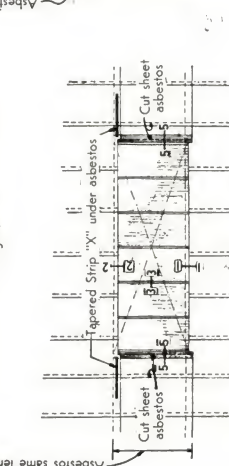
SKYLIGHT TYPE "R"
Asbestos sheets at end of skylight same length as glass



SKYLIGHT TYPE "S"
Asbestos sheets longer than glass and glass placed at bottom

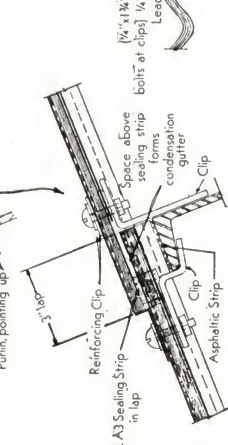
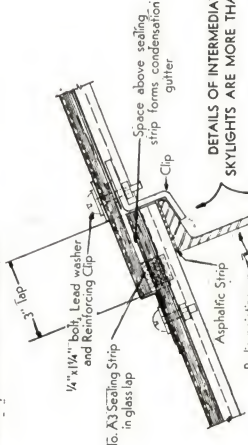


SKYLIGHT TYPE "T"
Asbestos sheets longer than glass and glass placed at top

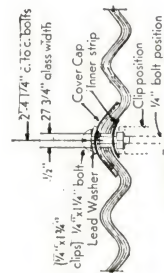


SKYLIGHT TYPE "Z"
Asbestos sheets longer than glass and glass placed at top

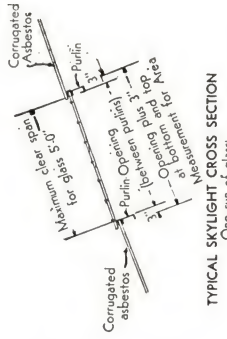
BOTTOM ROW—Shows skylights set in openings cut in asbestos with cut sheets at each end as often happens when skylights must be located definitely with relation to trusses, etc.



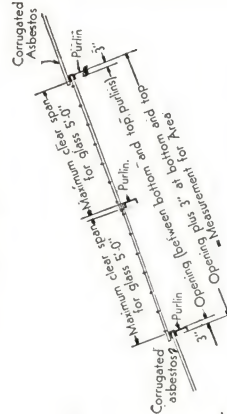
DETAILS OF INTERMEDIATE PURLINS WHERE SKYLIGHTS ARE MORE THAN ONE LIGHT HIGH



SECTION 33 Typical glass joint



TYPICAL SKYLIGHT CROSS SECTION
One run of glass



TYPICAL SKYLIGHT CROSS SECTION
More than one run of glass

The end cap connecting glass and asbestos is formed of two parts, viz.,
(1) A hard metal cap and inner strip which hold the glass firmly in place and
(2) A soft metal wing which is formed over the asbestos, trimmed to fit and bolted every 24 inches.

NOTE: Clip and bolt cap to glass before forming soft wing to asbestos.
P. W. G. Co.

NOTE: The soft metal wing is made 3" longer than hard metal cap at both bottom and top of skylight.

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NOTE:

This is a typical plan and detail sheet showing corrugated wire glass with any make of corrugated asbestos roofing. Since the pitch of different asbestos sheets varies, certain details of erection also vary (see list of detail drawings at left.)

DETAIL DRAWINGS

2 1/4" pitch asbestos—drawing No. 2700A

4 1/2" pitch asbestos—drawing No. 2700B

7" pitch asbestos—drawing No. 2700C

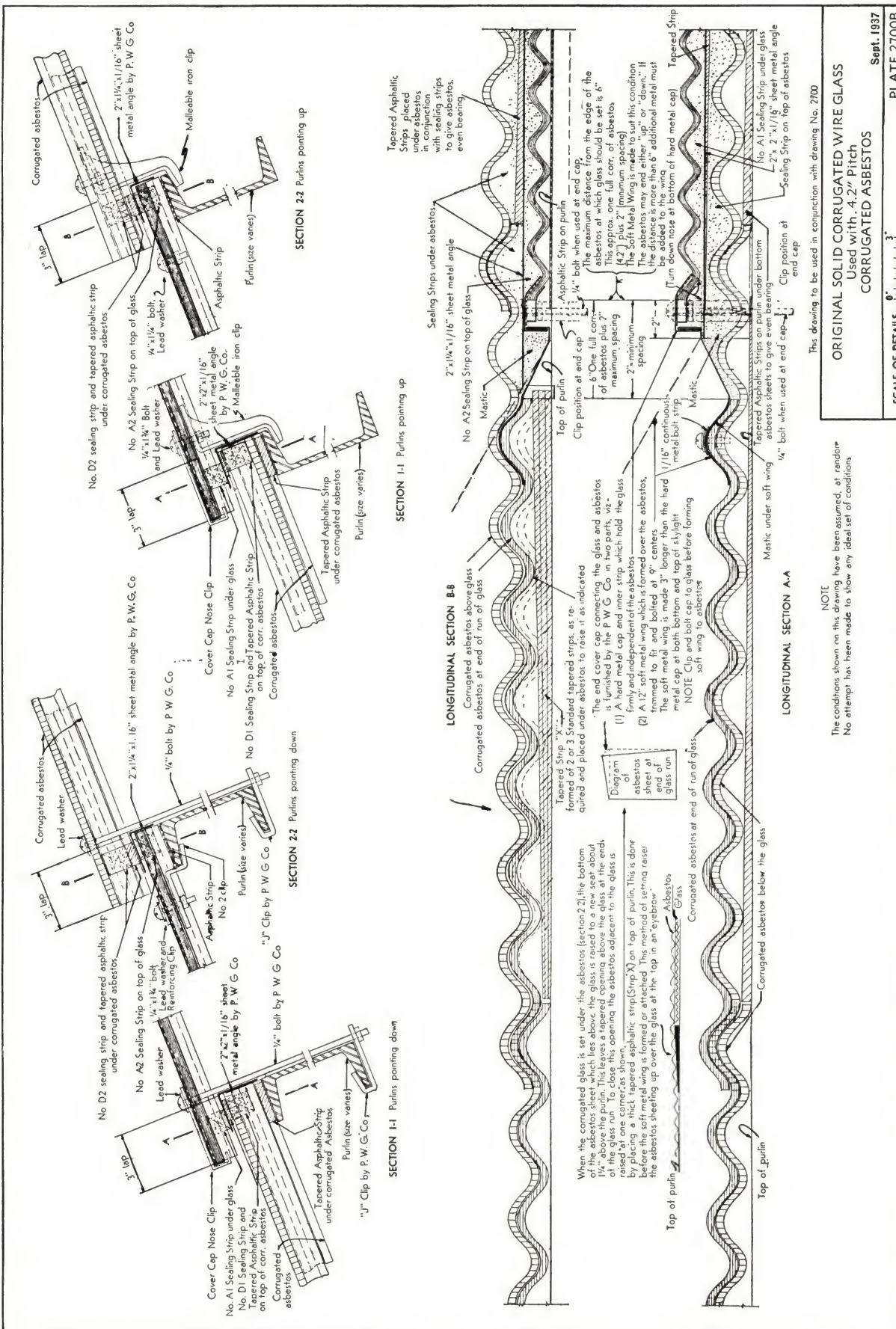
ORIGINAL SOLID CORRUGATED WIRE GLASS
USED WITH CORRUGATED
ASBESTOS ROOFING

Sept. 1937

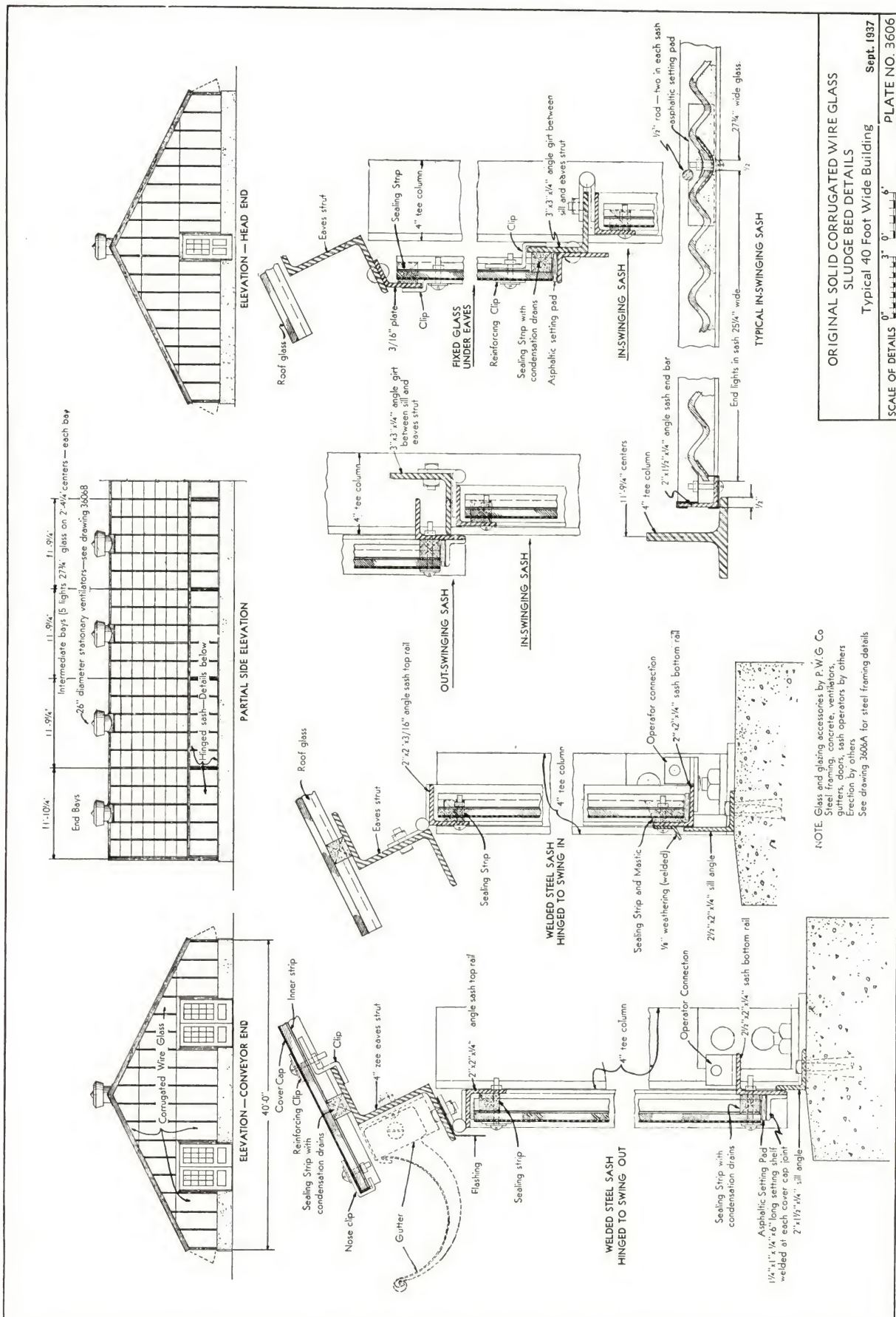
PLATE 2700

SCALE OF DETAILS









ORIGINAL SOLID CORRUGATED WIRE GLASS
SLUDGE BED DETAILS

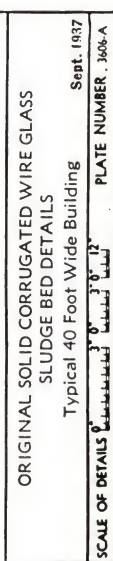
Sent 1937

Typical 40 Foot Wide Building

PLATE NO. 3606

SCALE OF DETAILS

NOTE. Glass and glazing accessories by P.W.G. Co
Steel framing, concrete, ventilators,
gutters, doors, sash operators by others
Erection by others
See drawing 3606A for steel framing details





INDOOR TENNIS COURT OF MRS. H. E. TALBOT
DAYTON, OHIO
C. W. G. Roof



PENNSYLVANIA RAILROAD STATION
NEWARK, N. J.
20,824 sq. ft. C. W. G. Skylight Construction



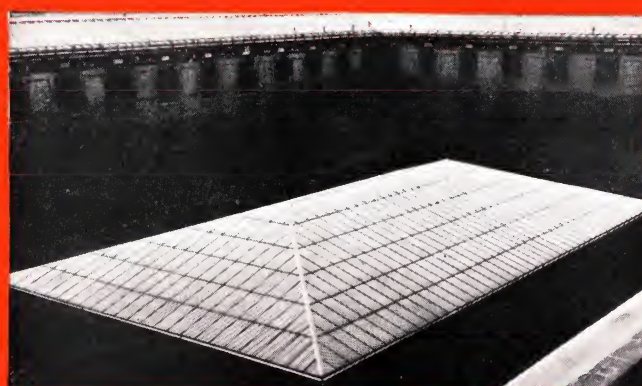
U. S. PIPE AND FOUNDRY COMPANY
CHATTANOOGA, TENN.
14,836 sq. ft. White and Actinic C. W. G. Sidewall Construction



CHESAPEAKE AND OHIO R. R. SHOPS
RUSSELL, KY.
68,000 sq. ft. Curb Skylights



LELAND ELECTRIC CO.
DAYTON, OHIO
20,000 sq. ft. Sawtooth Skylights

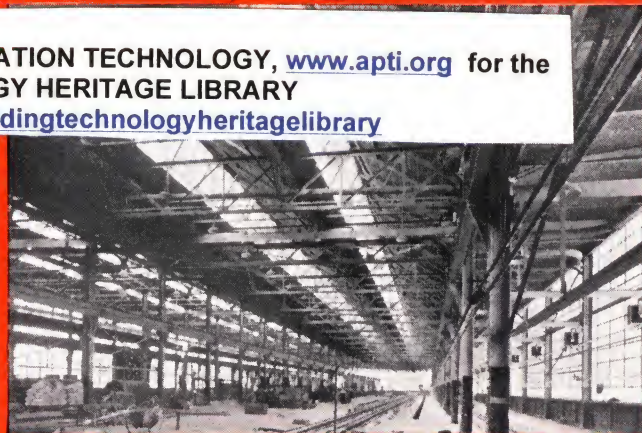


POST OFFICE, 33rd St. and Eighth Ave.
NEW YORK CITY
7,100 sq. ft. Hip Skylight

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BUILDING TECHNOLOGY HERITAGE LIBRARY
<https://archive.org/details/buildingtechnologyheritagelibrary>



FORD MOTOR CO.
LINCOLN DIVISION—DETROIT, MICH.
C. W. G. on Back Slopes of Sawtooths



LIBBEY-OWENS SHEET GLASS CO.
TOLEDO, OHIO
C. W. G. Sawtooth Skylights